

In the Claims:

Please cancel claim 1-10, without prejudice, and add new claims 11-20 as follows:

1-10. (Cancelled)

11. (New) A method of retrieving a target character string from an XML document based on a character-string table and a document-structure table, wherein the character-string table includes a plurality of character strings of variable length extracted from the XML document, and the document-structure table represents a tree structure of the XML document and includes a plurality of entries of fixed length, each of which corresponds to each of a plurality of elements in the XML document and includes a link to any one of the character strings in the character-string table, the method comprising:

judging whether a first entry in the document-structure table matches with a first condition;

extracting, from the character-string table, a character string to which the first entry is linked by the link therein when the first entry is judged to match with the first condition;

judging whether the character string matches with a second condition;

judging whether a second entry in the document-structure table matches with a third condition when the character string is judged to match with the second condition; and

extracting, from the character-string table, a character string to which the second entry is linked by the link therein as the target character string when the second entry is judged to match with the third condition.

12. (New) The method according to claim 11, wherein each of the entries in the document-structure table includes a type of a corresponding element and an identifier of a character string that is extracted from the corresponding element and stored in the character-string table.

13. (New) The method according to claim 12, wherein the judging whether the first entry matches with the first condition includes judging whether the type and the identifier in the first entry are identical to a type and an identifier specified in the first condition, respectively, and

the judging whether the second entry matches with the third condition includes judging whether the type and the identifier in the second entry are identical to a type and an identifier specified in the third condition, respectively.

14. (New) The method according to claim 11, wherein the judging whether the character string matches with the second condition includes judging whether the character string is identical to a character string specified in the second condition.

15. (New) The method according to claim 11, further comprising:
arranging the elements sequentially in an order of appearance in the XML document;
extracting a character string described in a tag or between tags from the elements;
identifying a type of each of the elements; and
storing the character string and an identifier thereof in the character-string table; and
storing, in the document-structure table, a plurality of entries each of which includes the type of a corresponding element and an identifier of a character string extracted from the corresponding element, wherein
the entries are arranged in the document-structure table in an order for which the elements are arranged at the arranging step.

16. (New) The method according to claim 15, wherein the arranging step includes placing a child element of a parent element between a start element and an end element that correspond to the parent element.

17. (New) A computer program for retrieving a target character string from an XML document based on a character-string table and a document-structure table, wherein the character-string table includes a plurality of character strings of variable length extracted from the XML document, and the document-structure table represents a tree structure of the XML document and includes a plurality of entries of fixed length, each of which corresponds to each of a plurality of elements in the XML document and includes a link to any one of the character strings in the character-string table, wherein the computer program causes a computer to execute:

judging whether a first entry in the document-structure table matches with a first condition;

extracting, from the character-string table, a character string to which the first entry is linked by the link therein when the first entry is judged to match with the first condition;

judging whether the character string matches with a second condition;

judging whether a second entry in the document-structure table matches with a third condition when the character string is judged to match with the second condition; and

extracting, from the character-string table, a character string to which the second entry is linked by the link therein as the target character string when the second entry is judged to match with the third condition.

18. (New) The computer program according to claim 17, further causing the computer to execute:

arranging the elements sequentially in an order of appearance in the XML document;

extracting a character string described in a tag or between tags from the elements;

identifying a type of each of the elements; and

storing the character string and an identifier thereof in the character-string table; and

storing, in the document-structure table, a plurality of entries each of which includes the type of a corresponding element and an identifier of a character string extracted from the corresponding element, wherein

the entries are arranged in the document-structure table in an order for which the elements are arranged at the arranging step.

19. (New) An apparatus that retrieves a target character string from an XML document based on a character-string table and a document-structure table,

wherein the character-string table includes a plurality of character strings of variable length extracted from the XML document, and the document-structure table represents a tree structure of the XML document and includes a plurality of entries of fixed length, each of which corresponds to each of a plurality of elements in the XML document and includes a link to any one of the character strings in the character-string table, the apparatus comprising:

- a first judging unit that judges whether a first entry in the document-structure table matches with a first condition;

- a first extracting unit that extracts, from the character-string table, a character string to which the first entry is linked by the link therein when the first entry is judged to match with the first condition;

- a second judging unit that judges whether the character string matches with a second condition;

- a third judging unit that judges whether a second entry in the document-structure table matches with a third condition when the character string is judged to match with the second condition; and

- a second extracting unit that extracts, from the character-string table, a character string to which the second entry is linked by the link therein as the target character string when the second entry is judged to match with the third condition.

20. (New) The apparatus according to claim 19, further comprising:

an arranging unit that arranges the elements sequentially in an order of appearance in the XML document;

a third extracting unit that extracts a character string described in a tag or between tags from the elements;

an identifying unit that identifies a type of each of the elements; and

a first storing unit that stores the character string and an identifier thereof in the character-string table; and

a second storing unit that stores, in the document-structure table, a plurality of entries each of which includes the type of a corresponding element and an identifier of a character string extracted from the corresponding element, wherein

the entries are arranged in the document-structure table in an order for which the elements are arranged by the arranging unit.